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Applicability: DDSN Regional Centers, DDSN Autism Services, DSN Boards and Contracted Service Providers

GENERAL

Tuberculosis (TB) in the elderly and other high-risk groups is of major concern in South Carolina as well as in the United States. This concern prompted the South Carolina Department of Health and Environmental Control, Divisions of Tuberculosis Control and Health Licensing to reinforce the importance of determining TB status upon entry to healthcare facilities by use of the Two-Step Tuberculin (TB) Skin Test.

The Two-Step TB Skin Test (intradermal Mantoux method) is given to establish a true baseline. In particular it will establish a true negative for a person never infected with TB. If the person does not react to the first test, the second test is given to give the immune system a “boost.” The second test should be positive if the person is truly infected with TB. The first dose triggers a response, but the second dose provides the true reaction. They both work together to provide a true baseline. This baseline information will become very important in the future. By having established a true baseline, the likelihood of misinterpreting later tests is minimized. This helps to eliminate the possibility of unnecessary medical tests and medications for those who may not need them. **NOTE:** A multiple puncture tests (TINE) is not an acceptable screening tool.

DEFINITIONS

Blood Assay for Mycobacterium tuberculosis (BAMT)

A general term to refer to recently developed in vitro diagnostic tests that assess for the presence of infection with Mycobacterium tuberculosis (M. tb.) This term includes, but is not limited to, IFN- γ release assays (GRA). In the United States, the currently available test is QuantiFERON®-TB Gold test (QFT-G).

Contact Investigation

Procedures that occur when a case of infectious TB is identified, including finding persons (contacts) exposed to the case, testing and evaluation of contacts to identify Latent TB Infection (LTBI) or TB disease, and treatment of these persons, as indicated.

Healthcare Workers (HCW)

All paid persons (employees/staff) and unpaid persons (volunteers) working in the setting who have potential for exposure to M. tb through airspace shared with persons with infectious pulmonary TB disease.

Latent TB Infection (LTBI)

Infection with M. tb. Persons with LTBI carry the organism that causes TB, but do not have TB disease, are asymptomatic and are not infectious. Such persons usually have a positive reaction to the tuberculin skin test.

Tuberculin Skin Test (TST)

A diagnostic aid for detecting M. tb. A small dose (0.1ml) of purified protein derivative (PPD) tuberculin is injected just beneath the surface of the skin (by the Mantoux method), and the area is examined for induration (hard, dense raised area at the site of the TST administration) by palpation 48-72 hours after the injection (but positive reactions can still be measurable up to a week after TST administration). The size of the indurated area is measured with a millimeter ruler after identifying the margins transverse (perpendicular) to the long axis of the forearm. The reading is recorded in millimeters, included 0mm to represent no induration. Redness/erythema is insignificant and is not measured or recorded.

Two-Step Tuberculin Skin Testing

Procedure used for the baseline skin testing of persons who may periodically receive Tuberculin Tests (TST) to reduce the likelihood of mistaking a boosted reaction for a new infection. After the first TST, a second test is repeated one to three (1 to 3) weeks after the initial test. If the initial TST is interpreted as positive, the reaction shall be documented and if the follow up is positive; this reaction will serve as the baseline and no further skin testing is indicated.

If the initial TST result is interpreted as negative (0mm), and the second test is given and the result is interpreted as positive, then the reaction shall be documented and the follow up will be recorded as positive; this reaction will serve as the baseline reading and no further skin testing is indicated. In general, the results of the second TST of the two-step procedure shall be used as the baseline reading.

PURPOSE

The purpose of this document is to establish the requirements for:

Section I, Page 4 - The completion of an annual TB risk assessment in the following settings:

- DDSN Regional Centers;
- DDSN Autism Services setting;
- Community-based ICFs/IID;
- DSN Board - operated Residential Habilitation settings;
- DDSN Contracted Service Provider – operated Residential Habilitation settings; and
- DDSN-licensed Adult Activity Centers and/or Work Activity Centers.

Section II, Page 5 - TB screening and testing for those being admitted to and/or receiving services in a setting listed above.

Section III. - Page 7 TB screening and testing for HCW supporting those receiving services in the settings listed above.

DDSN will follow recommendations of the Center for Disease Control (CDC) and National TB Controllers Association. This document is based on the updated recommendations from these entities for TB screening, testing and treatment of health care personnel released May 17, 2019.

All licensed ICF/IID facilities will be required to meet the requirements outlined in Regulation 61-13 Standards for Licensing Intermediate Care Facilities for Individual with Intellectual Disabilities

All licensed Community Residential Care Facilities (CRCF) will be required to meet the requirements outlined Regulation 61-84 Standards for Licensing Community Residential Care Facilities.

SECTION I. ANNUAL TB RISK ASSESSMENT

All settings shall conduct an annual TB risk assessment in accordance with CDC guidelines to determine the appropriateness and frequency of TB screening and other TB related measures to be taken.

- A. Review the community profile of TB disease in collaboration with the local or state health department.
- B. Consult the local or state TB Control Program to obtain epidemiologic surveillance data necessary to conduct a TB Risk Assessment for the healthcare setting.
- C. Determine if persons with unrecognized TB disease were encountered in the setting during the previous five (5) years.
- D. Determine if any HCW need to be included in the TB Screening Program.
- E. Determine the types of environmental controls that are currently in place, and determine if any are needed in the setting.
- F. Document procedures that ensure the prompt recognition and evaluation of suspected episodes of healthcare-associated transmission of *Mycobacterium tuberculosis* (M. tb).
- G. Conduct periodic reassessments at least annually to ensure:
 - i. Proper implementation of the TB Infection Control Plan.
 - ii. Prompt detection and evaluation of suspected cases.
 - iii. Prompt initiation of airborne precautions of suspected infectious TB cases.
 - iv. Prompt transfer of suspected infectious TB cases.
 - v. Proper functioning of environmental surroundings (i.e., mold, mildew, etc.)
 - vi. Ongoing TB training and education of HCW.
- H. Recognize and correct lapses in infections control.

The risk classification, such as low risk or medium risk, shall be used as part of the Risk Assessment to determine the need for an ongoing TB screening program for HCW and those supported in the setting. A risk classification shall be determined for the entire Agency. Different settings may have separate risk classifications

**SECTION II. THOSE BEING ADMITTED TO AND/OR RECEIVING SERVICES
IN THE SETTINGS NOTED ABOVE**

A. Screening:

- i. A baseline two-step TB skin test or TB blood test (BAMT) must be documented within one (1) month prior to admission unless there is a documented TST or a BAMT result within the previous 12 months. If someone who has been newly admitted has had a documented negative TST or BAMT within the previous 12 months, a single TST or BAMT can be administered within one (1) month prior to admission to the facility to serve as the baseline.
- ii. Where immediate placement is needed and the first step of the two-step TB skin test cannot be read by the date of admission, the medical record must document a recent (within one (1) month) chest x-ray and a written assessment for symptoms of active TB prior to admission. A two-step TB skin test must be performed within one (1) month after admission.

B. Persons whose initial TB test is interpreted as positive (with no previous history of positive TB test), or baseline positive or documentation of treatment for latent TB infection or TB disease or signs or symptoms of Tuberculosis should receive:

- i. A symptom evaluation - cough lasting longer than three (3) weeks, unexplained weight loss, night sweats or fever, and loss of appetite.
- ii. A chest x-ray to rule out TB disease.
- iii. Any additional evaluation/testing deemed necessary based on those results.
- iv. If TB disease is suspected, the local health department must be notified and a Report of Critical Incident entered into the DDSN Incident Management System; active TB will be treated according to the CDC Guidelines for Tuberculosis Treatment.
- v. Treatment for latent TB infection is strongly encouraged.

C. Persons with positive TB skin test results regardless of when that conversion occurred must have TB skin test conversion documented, a subsequent negative chest x-ray and negative assessment for signs and symptoms of TB documented before they may be admitted, as appropriate.

D. Persons with known or suspected TB disease shall be transferred from the setting and shall be required to undergo an evaluation. Only with approval by the South Carolina Department of Health and Environmental Control (DHEC) TB Control Program shall the person's return to the facility be permitted.

E. Annual TB Screening, Testing and Education

- i. Annual TB skin testing is not recommended for those receiving services in the settings noted unless there is known exposure or ongoing transmission at the setting.
- ii. Persons with a positive TB skin test or latent TB infection should receive annual TB symptom screening.

F. Post-exposure TB Screening and Testing

- i. Perform a contact investigation.
- ii. A person with a previously negative TB test result should receive a TB Symptom Screen and timely two-step skin or blood testing. Repeat testing eight to ten (8-10) weeks after the last known exposure. For consistency, the same type of TB test (e.g., two-step TB skin or TB blood test) should be placed at admission and for any follow up testing.
- iii. A person with a previously positive TB test result should receive a chest x-ray to exclude TB disease as well as a TB Symptom Screen. If they have symptoms, they should be evaluated for TB disease. They do not need to be re-tested.

SECTION III. HCW SUPPORTING THOSE RECEIVING SERVICES IN THE SETTINGS LISTED ABOVE.

Tb screening for HCW who will have direct contact with people receiving services in the settings listed above are required to have the following upon hire or before contact with those supported.

- A. Baseline Screening and Testing for Health Care Workers (HCW)
 - i. A baseline individual TB risk assessment (Attachment A).
 - ii. TB symptoms evaluation (Attachment B).
 - iii. A baseline two-step TB skin test or TB blood test must be documented prior to hire or upon hire but before direct contact with those supported information from the baseline individual TB risk assessment should be used to interpret the results of the TB skin or TB blood test.
 - iv. Additional evaluation for TB disease as needed.
- B. HCW whose initial TB test is interpreted as positive (with no previous history of positive TB test), or baseline positive or documentation of treatment for latent TB infection or TB disease or signs or symptoms of TB should receive:
 - i. A symptom evaluation (Attachment B).
 - ii. A chest x-ray to rule out TB disease.
 - iii. Any additional evaluation/testing deemed necessary based on those results.
 - iv. If TB disease is suspected, the local health department must be notified immediately.
 - v. Treatment for latent TB infection is strongly encouraged.
- C. HCW with positive TB skin test results, regardless of when that conversion occurred, must have TB skin test conversion documented, a subsequent negative chest x-ray and negative assessment for signs and symptoms of TB documented before they may be hired or after being hired but before direct contact with those supported, as appropriate.
- D. HCW with known or suspected TB disease shall be excluded from work and shall be required to undergo an evaluation. Only with approval by DHEC's TB Control Program shall the HCW be permitted to return to work.

E. Annual TB Screening, Testing and Education

- i. Annual TB testing is not recommended for HCW in the settings noted unless there is known exposure or ongoing transmission in the setting.
- ii. HCW with latent TB infection should receive annual TB Symptom Screening.
- iii. All HCW should receive annual TB education on the risk factors, signs, and symptoms of TB (Attachment C)

F. Post-Exposure TB Screening and Testing

- i. HCW with a previously negative TB test result should receive a TB Symptom Screen and timely two-step skin or blood testing. Repeat testing eight to ten (8-10) weeks after the last known exposure. For consistency, the same type of TB test (e.g., two-step TB skin or TB blood test) should be placed upon hire (pre-placement) and for any follow up testing.
- ii. HCW with a previously positive TB test result should receive a TB Symptom Screen and if they have symptoms, they should be evaluated for TB disease. They do not need to be re-tested.

Barry D. Malphrus
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To access the following attachments, please see the agency website page “Current Directives” at:
<https://ddsn.sc.gov/providers/ddsn-directives-standards-and-manuals/current-directives>

Attachment A: TB Risk Assessment
Attachment B: TB Symptom Evaluation
Attachment C: TB Symptoms

References:

CDC Guidelines for Preventing the Transmission of Mycobacterium Tuberculosis in Health Care Settings 2005

CDC TB Screening and Testing of Health Care Personnel 2019

SCDHEC Regulation 61-13 Standards for Licensing Intermediate Care Facilities for Individual with Intellectual Disabilities.

SCDHEC Regulation 61-84 Standards for Licensing Community Residential Care Facilities.